New Firm Creation: A Global Assessment of National, Contextual, and Individual Factors
New Firm Creation: A Global Assessment of National, Contextual, and Individual Factors

Paul D. Reynolds

George Washington University
USA

and

University of St. Gallen
Switzerland

pauldavidsonreynolds@gmail.com

Full text available at: http://dx.doi.org/10.1561/0300000034

Boston – Delft
Editorial Scope

Foundations and Trends® in Entrepreneurship will publish survey and tutorial articles in the following topics:

- Nascent and start-up entrepreneurs
- Opportunity recognition
- New venture creation process
- Business formation
- Firm ownership
- Market value and firm growth
- Franchising
- Managerial characteristics and behavior of entrepreneurs
- Strategic alliances and networks
- Government programs and public policy
- Gender and ethnicity
- New business financing:
  - Business angels
  - Bank financing, debt, and trade credit
  - Venture capital and private equity capital
  - Public equity and IPO’s
  - Family-owned firms
  - Management structure, governance and performance
  - Corporate entrepreneurship
  - High technology
  - Technology-based new firms
  - High-tech clusters
  - Small business and economic growth

Information for Librarians

Foundations and Trends® in Entrepreneurship, 2010, Volume 6, 6 issues. ISSN paper version 1551-3114. ISSN online version 1551-3122. Also available as a combined paper and online subscription.
New Firm Creation:
A Global Assessment of National, Contextual, and Individual Factors*

Paul D. Reynolds¹,²

¹ Howard Hoffman Distinguished Scholar of Management and Entrepreneurship, George Washington University, USA
² Senior Research Fellow, Swiss Institute for Small Business and Entrepreneurship, University of St. Gallen, Switzerland,
pauldavidsonreynolds@gmail.com

Abstract

The prevalence of individuals actively involved in business creation among 75 countries varies from one in thirty (Japan, Belgium, France) to one in three (Peru, Uganda). Predictive models reflecting five national aspects — economic, structural, centralized control, population potential for entrepreneurship, and cultural support — are able to

*The impetus for this analysis was participation in the Canadian sponsored International Development Research Centre (IDRC) assessment of MENA region entrepreneurship managed by the Cairo office and directed by Susan Joekes and Lois Stevenson. Earlier versions of this assessment were presented at the GEM Research Conference at Imperial College in London, UK on 01 October 2010, the International Council of Small Business-George Washington University Global Entrepreneurship Research Conference on 15 October 2010, and the launch of the IDRC GEM-MENA Regional Report: 2009 in Cairo Egypt on 5 December 2010. Helpful comments on earlier drafts were received from Heiko Bergmann (U. St. Gallen, SW), Per Davidsson (Queensland U. Technology, AU), William J. Dennis (NFIB, Washington, DC, USA), Ferdinand Jaspers (Erasmus U., NL), and Tomasz Mickiewicz (University College London, UK).
account for 63% to 93% of the variation in 23 types of business creation. The most important factors associated with the prevalence of business creation are the capacity of the population to participate in business start-ups, a high prevalence of small businesses, participation of women in the labor force, the presence of informal investors, emphasis on traditional rather than secular–rational values, presence of young adults, and income inequality. The use of log linear regression modeling to predict individual participation in 15 types of business creation explained from 14% to 41% of the variance. Personal attributes, national cultural and social norms, and personal context were much more likely to be associated with individual participation in business creation than characteristics of the national economy, economic structure, population readiness for business creation or centralized control of economic activity. The primary policy implication is that efforts to directly prepare individuals for business creation are more likely to have an impact compared to adjustments in regulatory procedures or legal standards. The assessment demonstrates the considerable value from harmonized cross national data on business creation and national attributes. There remains, however, substantial opportunity for improving understanding of the entrepreneurial process.

Full text available at: http://dx.doi.org/10.1561/0300000034
# Contents

1 Introduction 1

2 Business Creation: The Core of Entrepreneurial Activity 5

3 The Business Life Course 7

4 Strategy for Assessment 11

5 National Business Creation 15
  5.1 Identifying Business Creation: Multiple Measures 16
  5.2 National Factors Associated with Business Creation 30
  5.3 National Case Weights 52
  5.4 National Factors Correlated with Business Creation 55
  5.5 National Factors: Relative Impact on Business Creation 55
  5.6 Assessing National Factors Affecting Business Creation 66
  5.7 Assessment of Specific National Attributes 71

6 World Regions and Business Creation 73
  6.1 Variation in Business Creation 74
6.2  Characterizing World Regions 75
6.3  Summary of Major National Factors by Global Region 86

7  Individual Participation in Business Creation 89
7.1  Active in Business Creation: Multiple Measures 90
7.2  Personal Attributes and Context 91
7.3  National Factors 97
7.4  Strategy for Analysis 97
7.5  Relative Impact of Personal Attributes and Context versus National Characteristics 104
7.6  Factors Affecting Individual Participation in Business Creation 106
7.7  Summary of Relative Influences in Individual Predictive Models 124
7.8  Relative Impact of Different Categories 128

8  Business Creation: Overview of Analyses 131

9  Policy Implications 137
9.1  Global Diversity in National Factors 139
9.2  Influence on Individuals versus Adjustment of National Factors 139
9.3  National Factors: Expediency versus Impact 141
9.4  Gender Equality 143
9.5  National Factors and Individual Responses 144
9.6  Financial Support 144
9.7  Commentary on Policy Implications 145

10 Implications for Future Research 147

A  Respondent Counts by Year and Country 151
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>B  High Technology Sectors</td>
<td>155</td>
</tr>
<tr>
<td>Based on Employee Qualifications</td>
<td></td>
</tr>
<tr>
<td>C  World Region and Development</td>
<td>157</td>
</tr>
<tr>
<td>Classification: 75 Countries</td>
<td></td>
</tr>
<tr>
<td>D  Traditional versus Secular</td>
<td>159</td>
</tr>
<tr>
<td>Rational Values: Selected Items</td>
<td></td>
</tr>
<tr>
<td>E  Survival versus Self-expressive</td>
<td>161</td>
</tr>
<tr>
<td>Values: Selected Items</td>
<td></td>
</tr>
<tr>
<td>F  Business Creation Prevalence</td>
<td>163</td>
</tr>
<tr>
<td>Rates by Country: 23 Types</td>
<td></td>
</tr>
<tr>
<td>G  National Characteristics: 25 Types by Country</td>
<td>171</td>
</tr>
<tr>
<td>References</td>
<td>181</td>
</tr>
</tbody>
</table>
New firm creation is one of the most important facets of modern economic life. The emergence of new ventures is central to economic adaptation and change and a major factor associated with increases in sector productivity. In addition, hundreds of millions pursue new firm creation as a serious career option. Knowing more about countries with different levels of firm creation, and the context and specific characteristics of those active in firm creation, is of considerable scientific, practical and policy interest.

Higher levels of firm creation in cities, regions, or countries are associated with economic growth; it is rare to have economic growth without business creation. One conception of economic development suggests that as countries become more economically sophisticated and complex the emphasis shifts from producing commodities for export to production efficiencies and, eventually, to an emphasis on innovation and service activities. New firms are central to the mechanisms

---

2. One recent assessment has classified countries into five development stages, from an emphasis on commodities, a transition to emphasis on efficiency, an emphasis on efficiency, a transition to an emphasis on innovation and service, and an emphasis on innovation and service Schwab and Sala-i-Martin (2010).
Introduction

underlying the structural changes required as economies adapt and grow, reflecting the emergence of new industries producing new products with new production technologies. There is no question that firm creation is a central feature of national economic development.

But it is now clear that the pursuit of business creation, even in the form of self-employment, is an important career choice for hundreds of millions. In many developing countries it is a career option that may lead to better societal outcomes compared to criminal enterprises such as systematic piracy or kidnapping, or anarchistic terrorism and political violence. Responsible business creation, even replication of existing activity, can provide substantial benefits to society.

Despite centuries of attention to and interest in entrepreneurship, only in the last several decades has it been possible to develop precise assessments of the scope and impact of business creation. The first comprehensive assessment indicating the significant contribution of new and small firms to job creation was initially published in 1979, about 30 years ago; it required substantial reorganization and redeployment of existing business registries. In the past decade, procedures for identifying representative samples of those active in business creation have been developed and implemented in over 75 countries. This research program, known as the Global Entrepreneurship Monitor (GEM) initiative, has developed systematic information on both the national level of firm creation and the nature of individuals actively involved in the process.

The following takes advantage of this information to explore several related issues:

- What national characteristics are associated with differences in the prevalence of business creation?
- Which factors are more highly associated with individual participation in business creation, national characteristics or personal attributes and local context?
- Which of seven types of influences representing national characteristics, local context, and personal attributes has the greatest association with individual participation in business creation?

Birch (1979).
There is a general consistency in the results of all three analyses. The association of personal and contextual factors with business creation is much greater than national characteristics.

The analysis of data from 75 countries is weighted to represent the global population of 3.2 billion individuals eligible to participate in business creation. In addition, the assessment develops predictive models for a wide range of business creation activities. The results have very broad application. Two sets of linear additive models are developed that are relatively successful in predicting, first, national variation in the prevalence of business creation, and, second, individual participation in business creation. As all data represents the same time period, causal inferences are problematic, but there is strong evidence of associations between some national, local context, and individual attributes and business creation. Countries in ten world regions are characterized in terms of the features most highly associated with business creation. Implications for policy interventions and future research conclude the discussion.

\[\text{Wennekers (2006)}\] pursued a similar goal, with multiple measures of entrepreneurship.


References


Full text available at: http://dx.doi.org/10.1561/03000000034
References


Full text available at: http://dx.doi.org/10.1561/0300000034